Alberta Conservation Association

2018/19 Project Summary Report

Project Name: MULTISAR – Milk River

Wildlife Program Manager: Doug Manzer

Project Leader: Brad Downey

Primary ACA staff on project: Brad Downey, Sarah Gray, Paul Jones, Daniel Knop, Julie Landry-DeBoer, and Lee Moltzahn

Partnerships

Alberta Environment and Parks
Government of Canada
Landholders
Milk River Watershed Council Canada
Prairie Conservation Forum

Key Findings

- Collaborated with ranchers and completed Habitat Conservation Strategies reassessments on 61,119 acres.
- We developed enhancements on five properties ranging from off-site cattle watering units to wildlife-friendly fencing and continued maintenance of our native grass restoration projects.
- Documented native grass restoration site on the Silver Sage Conservation Site achieving a healthy range status (75% rating) and supporting *Threatened* species like Sprague's pipit.

Introduction

We focus on multi-species conservation at the landscape level that promotes stewardship through voluntary participation of landholders on both Crown and private lands. The program is a collaborative effort among landholders, ACA, Alberta Environment and Parks, and Prairie Conservation Forum. Our primary goal is to collaboratively develop plans to benefit multiple species; these plans are then implemented through habitat enhancement activities that benefit both the farm or ranch operation and wildlife. We initiated this effort in the Milk River Watershed (6,776 square kilometres) in 2002 because it supports the highest number of species at risk of any definable landscape in Alberta.

Methods

We completed point count surveys on five ranches to measure the occupancy of birds (Landry-DeBoer and Downey 2010). We surveyed riparian areas on these ranches by walking along the edge of the waterbodies listening and observing for amphibians (Kendell 2002). We also setup bat meters and song meters in key areas to identify bats and record birds and amphibians that may have been missed during point counts.

In early August, we surveyed short-horned lizards at sites that were predicted to be highly suitable habitat based on habitat models and historical occurrences (James 2002). In early October, we surveyed coulee slopes to identify new snake hibernacula (dens) (Alberta Sustainable Resource Development 2010). We also completed range health assessments (Adams et al. 2005) and incorporated these results along with those from the wildlife inventories into landholder-specific Habitat Conservation Strategies (HCS). These plans map out objectives going forward along with potential habitat enhancements to guide future work. We monitored 44 enhancements on multiple ranches completed in previous years and did an in-depth assessment of the response of wildlife and habitat on six ranches previously visited in 2012 and 2013. These data will help determine if enhancements and ranch-specific actions implemented since 2012/13 are having the desired effect on wildlife habitat (Jones and Landry-DeBoer 2012).

A large part of our effort goes into communication activities. These activities included presentations and tours to funding agencies and partners, and participation in several conferences and workshops.

Results

In 2018, we completed nine new habitat enhancements on five ranches and continued work on one other enhancement initiated in a previous year. We continued the restoration of 1,300 acres back to native grass through spraying for brome, Canada thistle, and other weeds to help ensure the seed bed is clean. We direct seeded 90 acres back to native grass, and an additional 160 acres was over seeded with a wheatgrass/ spring wheat mixture to help stabilize the soil. We cleaned up 11 km of tumble weeds in the spring of 2018 thanks to extreme fire conditions in the late summer/ fall of 2017 that prevented mowing. We planted 2,000 needle and thread plugs on the 90-acre restoration site that was seeded this year on the Silver Sage Conservation Site. We installed three kilometres of new wildlife-friendly fencing for pronghorn and to prevent cattle from accessing riparian areas. We wrapped 30+ cottonwood trees to protect them from beavers on our newly acquired Chinook Conservation Site. We purchased a portable watering unit to be used around dugouts and wetlands to improve habitat for amphibians and waterfowl as well as provide water to cattle that have been prevented from accessing the river thanks to the new wildlife-friendly fence. We developed a dugout to provide an alternative watering source to improve cattle distribution. We purchased two offsite water troughs that will reduce cattle impacts on a large wetland. These activities bring the total number of direct on the ground enhancements shared among many landowner participants to 165 since 2005 (Figure 1).

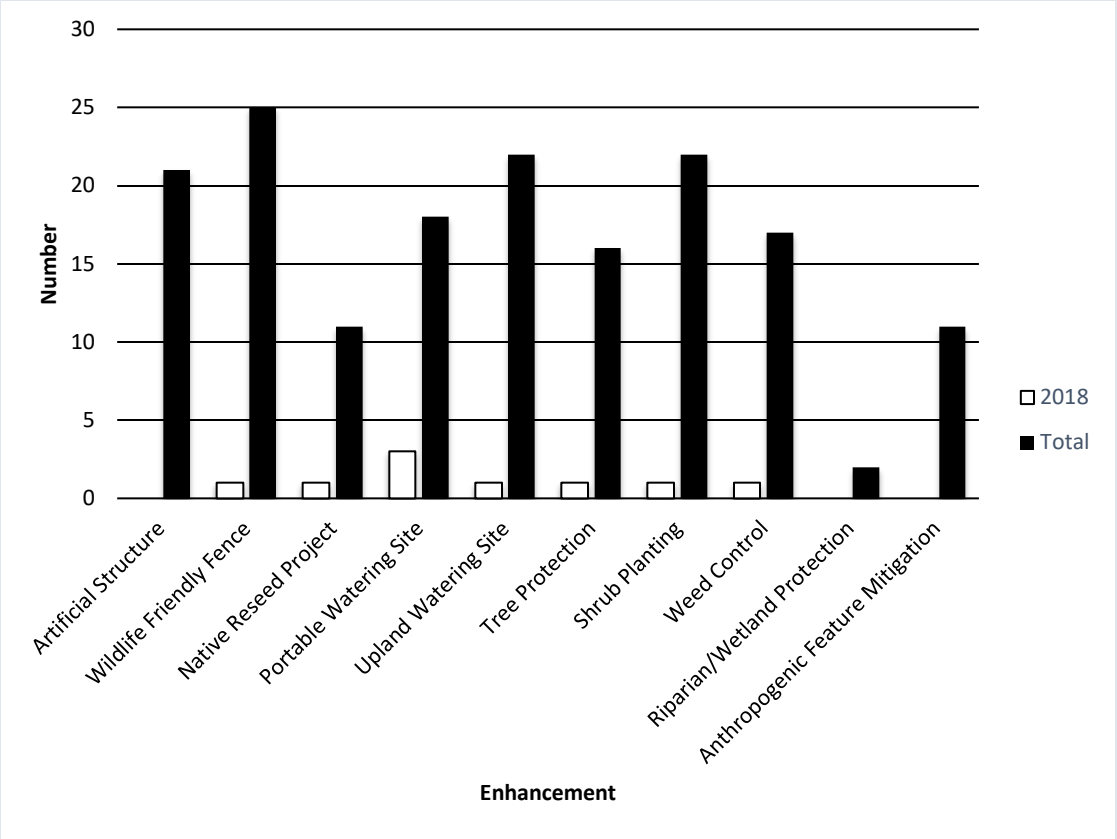

Figure 1. The number and type of habitat enhancements implemented by MULTISAR in 2018 and since 2005.

As part of our ongoing monitoring, we reassessed five ranches previously surveyed in 2012 and 2013 totalling 61,119 acres. We completed 186 range health assessments, 32 tame pasture health assessments, eight detailed transects, and eight riparian assessments. In total, we had 3,003 wildlife observations. We saw an increase in range health with 66% of sites in the healthy categories compared to 62% during the baseline assessment. We also saw a decline in unhealthy range sites to 5% of sites versus 9% during original baseline assessments. Having a mosaic of range land conditions is important for wildlife as some species prefer land with less litter or low structure; however, having most of the land base in healthy conditions is the desire.

Based on trends from all five reassessment properties combined, five of eight species at risk, including all three species classified as *Endangered/At Risk* or *Threatened/May be at Risk*, exhibited an overall decrease in numbers. Chestnut-collared longspur numbers have decreased on three of the four reassessment properties where chestnut-collared longspurs were one of the top

ten most abundant species during baseline surveys. On the fourth property (MP_24) chestnut-collared longspurs increased slightly from two observations in 2012 to four observations in 2018. Sprague's pipit numbers decreased on four properties and remained stable on the fifth property based on the data from the reassessments. On the three properties where Sprague's pipit numbers had a stable or near stable trend very few pipits overall were observed (four observations on each property). McCown's longspur were only observed on one of three reassessments in 2018 where they had originally been recorded during baseline surveys. The one property where they were observed in 2018 (MP_25) had low but relatively stable numbers (six observations in 2012, eight in 2018). Baird's sparrow numbers increased or remained stable on three of the four properties where Baird's sparrow was one of the top ten most abundant species. The only property where Baird's sparrow numbers decreased (MP_23) had low baseline numbers to begin with (six observations). Brewer's sparrow numbers increased on both properties for which they were one of the top ten most abundant species. Lark bunting was one of the top ten species during the baseline surveys on MP_7 but no lark buntings were observed at this location in 2018. Ranch MP_7 stood out as the only property where pronghorn was one of the top ten species during baseline surveys but counts in 2018 were approximately 50% lower.

We monitored 44 enhancements in 2018, including ferruginous hawk poles, native grass restoration projects, upland watering systems, portable watering systems, shrub/forb plantings, and weed control plots. Ten of the 15 ferruginous hawk poles monitored this year were active. Our native grass restoration sites have maintained their health or increased in health since last year and continue to be used by several grassland birds, sharp-tailed grouse, and pronghorn. Both spring and fall reseeds are now in the same health condition seven years after they were seeded. The spring reseeds saw rapid improvement in their health (plant structure, litter, etc) between years three and four while the fall reseeds slowly improved over the seven-year monitoring term (Figure 2). Success was seen with our shrub plantings this year, from 2017, on sites that were seeded with silver sagebrush by hand prior to the contractor going over the site with a harrow and seeding grass.

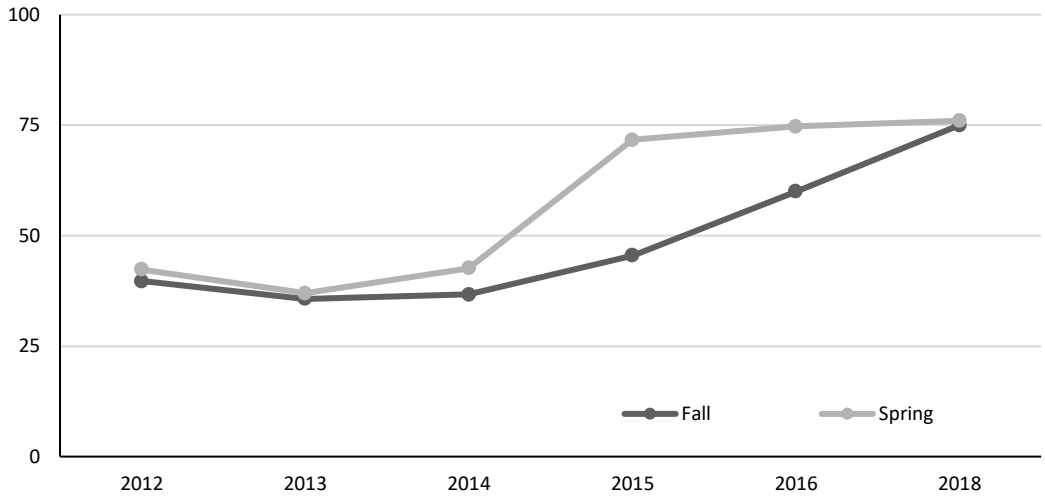

Figure 2: Range health changes on native grass restoration sites.

Conclusions

Long-term relationships built on mutual respect and trust between conservation groups and landowners has allowed us to collaborate with producers and implement enhancements on close to 450,000 acres through detailed planning. These improvements not only benefit habitat for species at risk but also provides essential resources for upland game birds and ungulates that are so highly valued by recreational users that access these ranches. Emphasising this is the recent addition of roughly 46,000 acres (long-time MULTISAR participant) into the Land Management's Recreational Access Program. Landholders view the MULTISAR program as non-threatening, and new relationships are being formed because of this awareness (Canadian Cattlemen's Association, Alberta Beef Producers, Canadian Round Table for Sustainable Beef and their support for expansion in the South Saskatchewan Watershed) and through promotion of the program in the local community. Declines in grassland bird numbers for key species like chestnut-collared longspurs and Sprague's pipits is note-worthy as breeding habitat on these properties has remained stable based on original assessments compared to reassessments, which leads to questions about other factors at play, like food, or factors outside producers influence like migration and wintering habitat.

Communications

ACA

- Assisted at the Women's Grazing School, Julie Landry-DeBoer, July 2018.
- Interview for Deer Creek Ranch Article in ACA's *Conservation Magazine*, Brad Downey, October 2018.
- Presented at the Milk River Watershed Council Canada's Science Forum on our Silver Sage Conservation Site Restoration Projects. Lee Moltzahn, November 2018.
- Toured Environment Canada, South of the Divide, and Ministry of Saskatchewan staff around our native grass restoration projects, Brad Downey, June 2018.
- Toured Public Land executive director around Sandstone Ranch discussing the MULTISAR Partnership, Brad Downey, July 2018.
- Presented to the University of Lethbridge on MULTISAR and species at risk. February 2019.
- Presented at the Prairie Conservation and Endangered Species Conference in Winnipeg Manitoba about out native grass restoration projects, Brad Downey, February 2019.
- Interview with *Frick, I Love Nature* on loggerhead shrikes, Brad Downey, September 2019.
- Participated in Youth Range Days at both Thomson and Sandstone Ranches, Lee Moltzahn, July 2018 – Range Health, Plant ID, Ranch Plan coaching, Plant ID Quiz
- Spoke at the MRWCC Science Forum in Milk River – Silver Sage Conservation Site: Conversion of Cropland to Native Grassland for Species-At-Risk Habitat and Grazing Opportunities, November 2018, Lee Moltzahn
- Participated in Youth Range Days at Roger Thomsons: Raptors and nesting structures presentation, raptor nest building exercise/demonstration, and grassland songbird identification. Julie Landry-DeBoer and Adam Moltzahn, July 2018.
- Aggie Days at the Lethbridge Exhibition. Talked with hundreds of kids about species at risk and the MULTISAR Project. April 2018, Julie Landry-Deboer.

Partners

- Published MULTISAR: A Multi-Species Conservation Strategy for Species at Risk in the Grassland Natural Region of Alberta 2018/19, MULTISAR, March 2019.
- Published *Grassland Gazette* newsletter, Winter 2018/19 issue.
- Maintained and updated MULTISAR Facebook page and Twitter account, Kristen Rumbolt.

Literature Cited

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Alberta Sustainable Resource Development. 2010. Sensitive species inventory guidelines. Alberta Sustainable Resource Development, Fish and Wildlife Division, Edmonton, Alberta, Canada. 69 pp. Available online: http://srd.alberta.ca/FishWildlife/WildlifeManagement/documents/SensitiveSpeciesInventoryGuidelines-Aug2010.pdf

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Kendell, K. 2002. Survey protocol for the northern leopard frog. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 43, Edmonton, Alberta, Canada. 30 pp.

Landry-DeBoer, J.P., and B.A. Downey. 2010. Habitat Conservation Strategies. Pages 12 – 23. In: F. Blouin, B.L. Downey, B.A. Downey, S.L. Frank, D.J. Jarina, P.F. Jones, J.P. Landry-DeBoer, and K.S. Rumbolt. MULTISAR: A Multi-Species Conservation Strategy for Species at Risk 2009 – 2010 Report. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 135, Edmonton, Alberta, Canada. 71 pp.

Photos

ACA staff, Amanda MacDonald, completing Robel pole measurements. Photo: Jason Headley

ACA staff, Allie Olson, inspecting the needle and thread grass patch seeding on a native grass restoration site. Photo Brad Downey

ACA staff, Adam Moltzahn, making adjustments to the Ferruginous Hawk Camera. Photo: Julie Landry-DeBoer

ACA staff, Lee Moltzahn, educating kids about grass species and range health. Photo: Kandra Forbes